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## RAW SEQUENCE LISTING

DATE: 08/27/2002

PATENT APPLICATION: US/10/047,990

TIME: 10:51:37

Input Set : A:\hpvseq.txt

Output Set: N:\CRF3\08272002\J047990.raw

3 <110> APPLICANT: GASTON ET AL  
5 <120> TITLE OF INVENTION: Methods of Inducing Cell Death  
7 <130> FILE REFERENCE: WIRO:016US  
9 <140> CURRENT APPLICATION NUMBER: 10/047,990  
10 <141> CURRENT FILING DATE: 2002-01-14  
12 <160> NUMBER OF SEQ ID NOS: 8  
14 <170> SOFTWARE: PatentIn Ver. 2.1  
16 <210> SEQ ID NO: 1  
17 <211> LENGTH: 365  
18 <212> TYPE: PRT  
19 <213> ORGANISM: Human papillomavirus  
21 <400> SEQUENCE: 1  
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23 1 5 10 15  
25 Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr  
26 20 25 30  
28 Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu  
29 35 40 45  
31 Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val  
32 50 55 60  
34 Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu  
35 65 70 75 80  
37 Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp  
38 85 90 95  
40 Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys  
41 100 105 110  
43 His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr  
44 115 120 125  
46 Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser  
47 130 135 140  
49 Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val  
50 145 150 155 160  
52 His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu  
53 165 170 175  
55 Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val  
56 180 185 190  
58 Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro  
59 195 200 205  
61 Glu Ile Cys Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr  
62 210 215 220  
64 Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg  
65 225 230 235 240  
67 Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu

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70 Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn
71          260          265          270
73 Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile
74          275          280          285
76 Val His Leu Lys Gly Asp Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg
77          290          295          300
79 Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His
80 305          310          315          320
82 Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr
83          325          330          335
85 Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile
86          340          345          350
88 Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile
89          355          360          365
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95 <212> TYPE: DNA
96 <213> ORGANISM: Human papillomavirus
98 <400> SEQUENCE: 2
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100 aatgatagta cagacctacg tgacatata gactattgga aacacatgcg cctagatgt 120
101 gctattttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcc 180
102 aactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgttagaa 240
103 acaatatata actcacaata tagtaatgaa aagtggacat tacaagacgt tagccttgaa 300
104 gtgtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360
105 ttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatgtt 420
106 gaagaagcat cagtaactgt ggtagagggt caagttgact attatggtt atattatgtt 480
107 catgaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaaa atatagtaaa 540
108 aataaagtat gggaagttca tgcgggtggt caggtaatat tatgtctac atctgtgtt 600
109 agcagcaacg aagtatcctc tcctgaaatt attaggcagc acttggccaa ccaccccgcc 660
110 gcgaccata ccaaagccgt cgccttgggc accgaagaaa cacagacgac tatccagcga 720
111 ccaagatcag agccagacac cggaacccc tgccacacca ctaagttgtt gcacagagac 780
112 tcagtggaca gtgtccaat cctcactgca ttaacagct cacacaaagg acggattaac 840
113 tgtaatatagta acactacacc catagtacat ttaaaagggtg atgctaatac tttaaaatgt 900
114 ttaagatata gatttaaaaa gcattgtaca ttgtatactg cagtgtcgtc tacatggcat 960
115 tggacaggac ataagtataa acataaaagt gcaattgtta cacttacata tgatagttaa 1020
116 tggcaacgtg accaattttt gtctcaagtt aaaataccaa aaactattac agtgtctact 1080
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118                                     1098
120 <210> SEQ ID NO: 3
121 <211> LENGTH: 365
122 <212> TYPE: PRT
123 <213> ORGANISM: Human papillomavirus
125 <400> SEQUENCE: 3
126 Met Glu Thr Leu Cys Gln Arg Leu Asn Val Cys Gln Asp Lys Ile Leu
127 1          5          10          15
129 Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr
130          20          25          30
132 Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu

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133          35          40          45
135 Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val
136          50          55          60
138 Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu
139 65          70          75          80
141 Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp
142          85          90          95
144 Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys
145          100          105          110
147 His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr
148          115          120          125
150 Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser
151          130          135          140
153 Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val
154 145          150          155          160
156 His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu
157          165          170          175
159 Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val
160          180          185          190
162 Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro
163          195          200          205
165 Glu Ile Ile Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr
166          210          215          220
168 Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg
169 225          230          235          240
171 Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu
172          245          250          255
174 Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn
175          260          265          270
177 Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile
178          275          280          285
180 Val His Leu Lys Gly Asp Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala
181          290          295          300
183 Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His
184 305          310          315          320
186 Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr
187          325          330          335
189 Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile
190          340          345          350
192 Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile
193          355          360          365
197 <210> SEQ ID NO: 4
198 <211> LENGTH: 1098
199 <212> TYPE: DNA
200 <213> ORGANISM: Human papillomavirus
202 <400> SEQUENCE: 4
203 atggagactc ttgccaacg tttaaattgtg tgtcaggaca aaataactaac acattatgaa 60
204 aatgatagta cagacctacg tgaccatata gactattgga aacacatgcy cctagaatgt 120
205 gctattttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcca 180

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206 acactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgtagaa 240
207 acaatatata actcacaata tagtaatgaa aagtggacat tacaagacgt tagccttgaa 300
208 gtgtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360
209 tttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatttgt 420
210 gaagaagcat cagtaactgt ggtagagggt caagttgact attatggttt atattatggt 480
211 catgaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaaa atatagtaaa 540
212 aataaagtat gggaagttca tgcgggtggt caggtaatat tatgtcctac atctgtgttt 600
213 agcagcaacg aagtatcctc tcctgaaatt attaggcagc acttggccaa ccaccccgcc 660
214 gcgaccata ccaaagccgt cgccttgggc accgaagaaa cacagacgac tatccagcga 720
215 ccaagatcag agccagacac cggaaacccc tgccacacca ctaagttggt gcacagagac 780
216 tcagtggaca gtgctccaat cctcactgca tttaacagct cacacaaagg acggattaac 840
217 tgtaatatga acactacacc catagtacat ttaaaagggt atgctgctac tttagcatgt 900
218 ttaagatatg catttaaaaa gcattgtaca ttgtatactg cagtgtcgtc tacatggcat 960
219 tggacaggac ataatgtaaa acataaaagt gcaattgtta cacttacata tgatagttaa 1020
220 tggcaacgtg accaattttt gtctcaagtt aaaataccaa aaactattac agtgtctact 1080
221 ggatttatgt ctatatga 1098

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224 &lt;210&gt; SEQ ID NO: 5

225 &lt;211&gt; LENGTH: 87

226 &lt;212&gt; TYPE: PRT

227 &lt;213&gt; ORGANISM: Human papillomavirus

229 &lt;400&gt; SEQUENCE: 5

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230 Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp
231   1             5             10             15
233 Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg Phe Lys Lys His Cys Thr
234             20             25             30
236 Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val
237             35             40             45
239 Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln
240             50             55             60
242 Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val
243             65             70             75             80
245 Ser Thr Gly Phe Met Ser Ile
246             85

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250 &lt;210&gt; SEQ ID NO: 6

251 &lt;211&gt; LENGTH: 264

252 &lt;212&gt; TYPE: DNA

253 &lt;213&gt; ORGANISM: Human papillomavirus

255 &lt;400&gt; SEQUENCE: 6

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256 atgaactgta atagtaaacac tacaccata gtacatttaa aaggtgatgc taatacttta 60
257 aaatgtttaa gatatagatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120
258 tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180
259 agtgaatggc aacgtgacca atttttgtct caagttaaaa taccaaaaac tattacagt 240
260 tctactggat ttatgtctat atga 264

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263 &lt;210&gt; SEQ ID NO: 7

264 &lt;211&gt; LENGTH: 87

265 &lt;212&gt; TYPE: PRT

266 &lt;213&gt; ORGANISM: Human papillomavirus

268 &lt;400&gt; SEQUENCE: 7

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269 Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp

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270      1              5              10              15
272 Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala Phe Lys Lys His Cys Thr
273              20              25              30
275 Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val
276              35              40              45
278 Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln
279              50              55              60
281 Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val
282 65              70              75              80
284 Ser Thr Gly Phe Met Ser Ile
285              85
289 <210> SEQ ID NO: 8
290 <211> LENGTH: 264
291 <212> TYPE: DNA
292 <213> ORGANISM: Human papillomavirus
294 <400> SEQUENCE: 8
295 atgaactgta atagtaacac tacacccata gtacatttaa aaggtgatgc tgctacttta 60
296 gcatgtttta gatatgcatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120
297 tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180
298 agtgaatggc aacgtgacca atttttgtct caagttaaaa taccaaaaac tattacagt 240
299 tctactggat ttatgtctat atga

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VERIFICATION SUMMARY

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